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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/683,604	10/10/2003	James A. Davis	P03080US1A(P362)	1011

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EXAMINER	
VALENTI, ANDREA M	

ART UNIT	PAPER NUMBER
3643	

DATE MAILED: 02/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/683,604	DAVIS ET AL.	
	Examiner	Art Unit	
	Andrea M. Valenti	3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 December 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,6,8-13,15-17 and 29-32* is/are pending in the application.

4a) Of the above claim(s) *25-28* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 2, 4, 6, 8-13, 15-17 and 29-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group 1 (Claims 1-17) in the reply filed on 25 June 2004 is acknowledged. The 06 December 2004 amendment presented amendments to claims 25-28. These are non-elected claims that have been withdrawn from consideration and are thus not considered in regards to the office action presented in the following paragraphs. Elected Claims 1, 2, 4, 6, 8-13, 15-17 and new Claims 29-32 are the remaining claims to be examined.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 31 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 31 recites the limitation "said shrimp and said crayfish" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4, 6, 8-12, 15-17, and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,854,327 to Davis et al.

Regarding Claims 1, 10 and 32, Davies teaches an aquaculture and method (Davis Col. 16 line 1, 2, and 4) comprising: a liner material including at least one ethylene-propylene-diene terpolymer (EPDM) (Davis Col. 4 line 28-30), wherein said EPDM liner material is cured by utilizing a curing package (Davis Abstract line 12) and at least one thiazole accelerator (Davis Col. 8 line 31) and at least one accelerator selected from the group consisting of dithiocarbamate (Davis Col. 8 line 27) accelerators and guanidine accelerators, and is devoid of thiuram accelerators (Davis abstract); inherently water contacting said liner material; and aquatic animals in said water (Davis Col. 16 line 4), inherently wherein a majority of the animals remain viable in said water for at least 7 days. Davis inherently teaches the terpolymer includes a crystallinity of less than 1 percent (Davis Col. 4 line 28-31; Col. 4 line 50-67; Col. 5 line 1-24). Davis teaches that it is old and notoriously well-known in the art to select a carbon black filler even though in this particular instance Davis has not selected carbon black (Davis Col. 1 line 49-52; Col. 1 line 10). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Davis with the selection of carbon black since Davis teaches that it is known to utilize this filler (Davis Col. 5 line 57-59). It is merely the selection of known alternate fillers.

Regarding Claims 4 and 15, Davis teaches the liner material further includes at least one filler selected from the group consisting of ground coal, calcium carbonate, clay, silica, mica, talc and cryogenically ground rubber (Davis Col. 5 line 51-56).

Regarding Claim 5, Davis teaches the filler includes at least one carbon black (Davis Col. 1 line 52).

Regarding Claims 6 and 17, Davis teaches the liner material further includes at least one processing oil selected from the group consisting of paraffinic oils, naphthenic oils and mixtures thereof (Davis Col. 7 line 66).

Regarding Claims 16, Davis teaches the curing agent is sulfur (Davis 8 line 23).

Regarding Claims 8 and 11, Davis is silent on the water being salt water. However, it would have been obvious to one of ordinary skill in the art to modify the teachings of Davis at the time of the invention depending on the needs of the aquatic life placed in the pond.

Regarding Claims 9, 12, and 29-31, Davis is silent on the aquatic animals are selected from the group consisting of shrimp and crayfish. However, it would have been obvious to one of ordinary skill in the art to modify the teachings of Davis at the time of the invention since the modification is merely the selection of a particular fish/aquatic life to meet aesthetic or production needs and does not present a patentably distinct limitation. Davis as modified inherently teaches that the fish are viable for at least 7 days since Davis teaches the application of the liner to fish ponds, fish ponds inherently house fish that are intended to live for more then 7 days and thus Davis intends and inherently teaches that the fish housed in the pond with the liner live for at least 7 days.

Claims 2 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,854,327 to Davis et al in view of U.S. Patent No. 5,584,991 to Wittstock et al.

Regarding Claims 2 and 13, Davis is silent on at least one of ammonia oxidizing bacteria and nitrite oxidizing bacteria are contacted with said water, and wherein said bacteria are biologically active in the water. However, Wittstock teaches a fish safe EPDM lined aquaculture system (Wittstock Col. 2 line 60-61) utilizing biologically active bacteria in the water (Wittstock Fig.1 #84 and Col. 6 line 31, 54, and 60). It would have been obvious to one of ordinary skill in the art to modify the teachings of Davis with the teachings of Wittstock at the time of the invention to as an environmentally friendly means of keeping the water clear.

Response to Arguments

Applicant's arguments filed 06 December 2004 have been fully considered but they are not persuasive.

Examiner maintains that Davis '327 teaches a terpolymer of EPDM that has a crystallinity of less than 1 percent. Applicant has not provided evidence to show that Davis '327 does not teach an amorphous terpolymer, nor has applicant indicated more specifics about the terpolymer. Merely claiming the terpolymer is generic in nature. Applicant has indicated on page 4, second paragraph, first sentence that the EPDM is found in ASTM-D-1418-94. This is the same EPDM taught by Davis '327 (Davis Col. 4 line 29) thus it has an amorphous nature including the crystallinity of less than 1%. Also, applicant has claimed on page 5 and 6 the EPDM under the trademark of Ketlan,

Vistalon and Royalene. Davis '327 teaches these same trademarks (Davis Col. 4 and Col. 5). Applicant teaches that Keltan with a Mooney Viscocity (ML4 at 125C) of about 63 and 64; an ethylene content between about 67.5 and 69.5 weight percent; and about 2.4 to 2.65 weight percent of unsaturation...(applicant specification page 5, second paragraph). Davis teaches an EPDM with these properties and thus also contains the crystallinity as taught by applicant (Davis '327 Col. 5 line 1-3 and Col.5 line 11-13).

Davis '327 teaches Royalene 3180 (Davis '327 Col. 5 line 9 and 11). Cited prior art reference U.S. Patent No. 5,700,538 to Davis et al teaches that Royalene 3180 is an amorphous EPDM (Davis '538 Col. 4 line 35-65). Applicant indicates on page 23, line 11 of the specification teaches that the compositions are not merely limited to the EPDM terpolymers exemplified.

Examiner maintains that Davis '327 teaches that carbon black can be a selected filler for the composition of this application, but just in some instance one of ordinary skill in the art can select alternate fillers (Davis '327 Col. 5 line 57-59). Thus Davis anticipates the claimed invention.

Davis teaches a liner for fish ponds, but is silent on the specific type of fish. The selection of the type of fish and the water conditions for the fish are obvious modifications for one of ordinary skill in the art. The examiner maintains that it would have been obvious to select for example shrimp based on consumer demands, ecological research, etc and merely supplying the pond with the proper known salinity to promote the longevity of the fish is an obvious modification.

Finally, examiner maintains the combination of Davis as modified by Wittstock. Wittstock teaches there is ample motivation for one of ordinary skill in the art to modify the teachings of fish pond taught by Davis. Wittstock teaches an EPDM lined fish pond, it would be obvious to modify Davis with the teachings of Wittstock to (Wittstock Col. 2 line 60-61) utilize biologically active bacteria in the water (Wittstock Fig.1 #84 and Col. 6 line 31, 54, and 60) to keep the water clean. Thus, the motivation of keeping the water of Davis clean in an environmentally friendly manner without having to introduce harmful chemicals.

Examiner maintains that applicant has not patentably distinguished over the teachings of the cited prior art.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea M. Valenti whose telephone number is 703-305-3010. The examiner can normally be reached on 7:30am-5pm M-F; Alternating Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 703-308-2574. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andrea M. Valenti
Patent Examiner
Art Unit 3643

08 February 2005

Peter M. Poon
Supervisory Patent Examiner
Technology Center 3600

2/10/05